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The Relationship between Online Social Networking and Offline Social Participation among People with Disability in Lithuania

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Abstract

People with disabilities are one of the targeted groups that have social participation restrictions due to the disabling barriers that exist in real world physical and social environments. Growing evidence from analyses of online social network site usage suggests that these sites could complement to and enhance people's networks of relationships present in the offline world by providing a platform for active communication between friends, acquaintances and other people in a network. However, it is important to know how people with disabilities self-assess online social networking as a means to overcome restrictions for social participation. The research objectives focused on the relationship between online social networking and offline social participation among people with motor, visual and hearing disabilities. The study aims to investigate the evaluation of the usefulness of social activity in OSN, types, frequency and motives of online social networks activity among people with disabilities and how it is related to their disability forms and the level of offline social participation restriction. For the purposes of the study a national representative survey of people with disabilities (18 years and older) who use social network sites, was conducted by Baltic Surveys Ltd, in June-July, 2014. Results of the statistical analysis showed that that evaluation of OSN as a facilitator of social involvement is quite high, but is only weakly positively correlated to offline participation. There are positive correlation between offline participation restrictions and motives to expand one's social network and to seek out people with similar disabilities. However, in Lithuania people with disabilities have a relatively not very high use of OSN as facilitated opportunities to compensate their offline participation restriction and to enhance their social capital.

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Keywords: Online social networks; people with disabilities; social participation; internet communication.

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1. Introduction

Social participation and communication are essential elements in human social life. Communication and active participation in social life form social networks, and self-perception; they facilitate self-fulfilment. The impact of social participation on human well-being is well established and has been extensively studied by early and more recent scholars (Chapin, 1939; Harry, 1970; Olsen & Marvin, 1972; Phillips, 1967; Powdthavee, 2008; Putnam, 2000; Ueno, 2005; Cavalcanti at al., 2013).

Social participation is especially crucial to people with different disabilities. They form a highly vulnerable social group that due to physical limitations (physical mobility or sensorimotor limitations) experience social participation restrictions in daily life situations (Seymour & Lupton, 2004; Baker at al., 2013).

There is no single agreed-upon definition of participating in the context of the life experience of people with disabilities. The World Health Organization's International Classification of Functioning, Disability and Health (ICF) is the most pervasive and thoroughly conducted research on the matter (Bricout at al., 2013:72). In this report ICF defines social participation as the individual's involvement in life situations: interaction and participation in wider aspects and areas of normal living or community life (WHO, 2001).

The complex situation of people with disabilities is aided by the internet and other information technologies (IT) which help to enrich, revitalize or even radically transform both real life and the offline world (Ester & Vinken, 2003). Internet communication offers the unique ability to transmit information and build relationships among large groups of physically disconnected individuals (Pasek, More & Romer, 2009). In particular, online social networks (OSN) have emerged as one of the most popular forms of internet communication. Participating in OSN has gradually become an alternative to classic, 'real-life' forms of social commitment, engagement and connectedness.

Internet social networks increasingly connect more people all over the world and could offer a space where people with disabilities can, at least partially, compensate for the restrictions experienced in daily life. Earlier studies show that social networks decrease the barriers of interpersonal discourse and communication and are highly functional for people who for various reasons struggle to maintain strong social networks (Ellison et al., 2007). However, scholars do not share a one-sided perspective on the utility of the internet and OSN for people with disabilities Some scholars points to the positive changes that internet communications bring to people with disabilities, (Grimaldi & Goette, 1999; Richard et al., 2008; Jaeger & Xie, 2009; Bricout & Baker, 2010; Forman et al., 2011; Gage, 2013), while other scholars offer more pessimistic findings on the exaggerated usefulness of ITC and point to the unresolved issue of the digital divide that is not solved by access to internet alone (Roulstone, 1998; Oliver, Barnes, Tomas, 2001; Goggin & Newell, 2003; Harris, 2010).

2. Purpose of Study

This study focuses on the relationship between online social networking and offline social participation among people with motor, visual and hearing disabilities. There are three objectives, as follows:

1. To examine, among people with disabilities evaluation of the usefulness of social activity in OSN in terms of any statistically significant differences among age groups, disability forms, gender and frequency of OSN usage; and to determine the relationship between the evaluation of the usefulness of social activity in OSN and offline social participation.

2. To examine, among people with disabilities motives for using OSN in terms of any statistically significant differences among age groups, disability forms, gender and frequency of OSN usage; and to determine the relationship between their motives and offline social participation.

3. To examine, among people with disabilities, the relationship between types of activity on OSN (productivity, consumption, active communication and passive communication) and motives for using OSN and offline social participation.

3. Methodology

3.1 Participants

For the purposes of the study a national representative survey of people with disabilities who use social network sites was conducted by Baltic Surveys Ltd, in June-July, 2014 . The sample consisted of 300 Lithuanians adults aged 18 years and older (M=37, SD=13,5), divided into sections of 53 people with blindness or visual impairment, 62 people with deafness or a hearing impairment and 185 people with motor disability. These individuals were randomly chosen from among all people with disabilities from different cities in Lithuania. Respondent distribution by gender was 164 men and 136 women.

3.2 Measurements

3.2.1. Evaluation of the Usefulness of OSN

In order to measure respondents evaluation of the usefulness of OSN for purposes of online social participation a scale was used that ranged from 1 (non-useful) to 10 (very useful). The mean of the evaluations total scores was calculated and used as the dependent variable.

3.2.2. Offline Social Participation

Offline social participation was measured using the shortened version of the Participation Scale (P-scale Short or PSS) created by S. Stevelink at al. (2012). The original PSS was composed of 13 questions (e.g. Do you have equal opportunity as your peers to find work? Do you visit other people in the community as often as other people do?) Respondents were asked to indicate the extent to which offline social participation was a problem for them. The response option was a 5-point scale ranging from „no problem (= 1)“ to „large problem (= 5)“. Cronbach's alpha of the total scale was 0.922. The higher means of the score indicate the higher offline social participation restrictions. The mean of the total score of the PSS was used as a dependent variable.

3.2.3. Motivation for Using OSN

The measurement of motivation for using OSN was based on a Likert scale adapted from Ellison et al. (2006), Kim et al. (2011). A total of 17 statements were used (Cronbach's $\alpha = 0.862$). The motivation scale is composed of 5 subscales: (1) use OSN to connect with offline contacts (Cronbach's $\alpha = 0.728$) (e.g. I use OSN to check out someone I met socially), (2) use OSN to meet new people (Cronbach's $\alpha = 0.792$) (e.g. I use OSN to find others like me), (3) use OSN for Information seeking (Cronbach's $\alpha = 0.705$) (e.g. I use OSN to learn about unknown things), (4) use OSN for Information splitting (Cronbach's $\alpha = 0.678$) (e.g. I use OSN to proclaim social problems and discrimination against the disabled) and (5) use OSN for seeking entertainment (Cronbach's $\alpha = 0.734$) (e.g. I use OSN just for fun). To each statement respondents indicated their degree of agreement or disagreement on a 5-point Likert scale. The means of the subscales were used as dependent variables.

3.2.4. Types of activity on OSN

The measurement of activities on OSN for people with disabilities was based on the Likert scale adapted from the Burke at al. (2010). A total of 20 statements were used (Cronbach's $\alpha = 0.947$). Respondents were asked to report their frequency of use for the following 20 statements based on activities from the OSN. The statements were separated into four subscales based on different types of activities: (1) content production (Cronbach's $\alpha = 0.853$), content consumption (Cronbach's $\alpha = 0.826$), directed communication (Cronbach's $\alpha = 0.884$), passive

communication (Cronbach's $\alpha = 0.856$). Response options were daily (= 6), a few times a week (= 5), once a week (= 4), once a month (= 3), rarer than once a month (=2), and never (=1). The means of the subscales were used as dependent variables.

3.2.5. Control variables

Control or independent variables included age, gender, disability form and frequency of using OSN (from daily to less than once a month).

3.2.6. Analysis

For data analysis SPSS 21.0 software was used. A Kolmogorov-Smirnov (K-S) test was used to test for normality of the distribution and for determining non-parametric data. The examination of the statistical significance of results was carried out by means of the following non-parametric tests: Kruskal–Wallis test, Mann-Whitney U test, Spearman's rank correlation coefficient. The reliability of each scale and subscale was estimated using Cronbach's alpha coefficient of internal consistency.

4. Results

Objectives 1. In order to examine, among people with disabilities evaluation of the usefulness of social activity in OSN a Kruskal-Wallis H test was used which showed that there was a statistically significant difference in evaluation score between the different disability forms, $\chi2(2) = 8.870$, df = 2, p = 0.012, age groups, $\chi2(2) = 10.573$, df = 3, p = 0.014, and frequency of using OSN, $\chi2(2) = 34.472$, df = 4, p = 0.000. Mann-Whitney U Test showed that there was not a significant difference in evaluation scores between genders, U = 9162,5; Z = -1,69; p = 0.092. The obtained general evaluation mean score was 6.94 on a 10 point scale. The best OSN evaluation of the usefulness of social activity in OSN was found between respondents with motor disability (M = 7.16, SD 1.97), followed by respondents with deafness or hard hearing (M = 6.93, SD = 1.92) and the weakest evaluation was among respondents with visual impairment (M = 6.16, SD = 2.16). The evaluations of OSN usefulness among different age-groups were in descending order: under age 25 (M= 7.27, SD= 2.16), followed by ages 25-34 (M = 7.13, SD = 2.04), ages 35-49 (M = 6.90, SD = 1.95), ages 50 and more (M = 6.41, SD = 1.82). The results for comparing mean scores between respondents who use OSN at different frequencies showed that respondents obtained the highest means for those who use OSN daily (M = 7.54, SD = 1.78), with medium means for those who use it a few times a week (M = 6.72, SD = 1.88) and once a week (M = 6.48, SD = 1.88), and the lowest means were for those who use it once a month (M = 5.90, SD = 1.73) and rarer (M = 4.17, SD = 2.86).

The relationship between the evaluation of the usefulness and offline social participation was investigated using Spearman's rank order correlation coefficient. There was a weak, positive correlation between the two variables [r = 0.139, n = 290, p < 0.01], with high levels of the evaluation of the usefulness of social activity in OSN associated with higher levels of offline social participation restrictions. The correlation between these two variables for respondents with motor disability was r = 0.169, n = 180, p < 0.05), while for respondents with visual impairments it was r = -0.171 n = 50, p < 0.05). These results showed a positive relationship between the evaluation of the usefulness and offline social participation restrictions among people with motor disability and negative relationship among people with visual impairments.

Objective 2. Results of descriptive analyses showed that the strongest groups of motives for using OSN among people with disabilities are directed to connect with offline contacts (M = 4.02, SD = 0.65), and to meet new people (M = 3.82, SD = 0.70), the weaker motives are for information seeking (M = 3.80, SD = 0.60) and for seeking entertainment (M = 3.39, SD = 1.24), the weakest motives are for information splitting (M = 2.94, SD = 0.80). There were no statistically significant differences in the motives for using OSN for disability forms, gender, age groups and frequency of using OSN.

The relationship between respondents' motives for using OSN and their offline social participation was investigated using Spearman's rank order correlation coefficient. The results showed a weak, positive correlation

between only one group of motives "*Use OSN to meet new people*" (r = 0.174, n =289, p < 0.01) and the offline social participation mean score. Additional measures showed correlations between two motives: "*I use OSN to meet new people and broaden my social circle*" (r = 0.130, n =287, p < 0.05) and "*I use OSN to find others like me with disability*" (r = 0.208, n =286, p < 0.01). This indicates that respondents with stronger offline participation restriction explore OSN because of these two motives mentioned above.

Objective 3. Descriptive analyses carried out on respondents' types of activity on OSN showed that people with disabilities act as content consumers most frequently (about once a week) (M = 4.25, SD = 1.19), communicate in passive way (M = 3.65, SD = 1.27) and also in directed way (M = 3.33, SD = 1.16) a few times a month, and act as content productive users rarer than once a month (M = 2,47, SD = 0.98).

The relationships among respondent types of activity on OSN, motives for using OSN and their offline social participation were investigated using Spearman's rank order correlation coefficient (Table 1). Results did not show any significant relationships between any type of activity on OSN and offline social participation. Although there were positive correlations between 1, 2 and 4 motives groups and all type of activity on OSN and negative correlation between 3 and 5 motives groups. This indicates that respondents engage in the aforementioned OSN activity more when they seek to connect with offline contacts (1), to meet new people (2), to split information (4), and less when they seek for Information (3) and entertainment (5).

Table 1. Spearman's rank order correlations between types of activity on OSN, motives for using OSN and their offline social participation

Scales/subscales	Offline participation (PSS) scale	1 motives subscale	2 motives subscale	3 motive subscale	4 motive subscale	5 motive subscale
Offline participation (PSS) scale	1.000	-.012	.174**	-.044	-.030	.004
Content production subscale	-.007	.130*	.279**	-.156**	.379**	-.738**
Consumption subscale	.093	.183**	.320**	-.434**	.185**	-.736**
Active communication subscale	.026	.169**	.337**	-.239**	.304**	-.947**
Passive communication subscale	.026	.164**	.228**	-.345**	.308**	-.893**

Note. Motivation for using OSN subscales: (1) use OSN to connect with offline contacts, (2) use OSN to meet new people, (3) use OSN for Information seeking, (4) use OSN for Information splitting, and (5) use OSN for seeking entertainment.
** - Correlation is significant at the 0.01 level (2-tailed).

5. Discussion and Conclusion

The main purpose of this study was to explore the relationship between online social networking and offline social participation among people with disability. The results show that evaluation of OSN as a facilitator of social involvement is quite high, but is only weakly positively correlated to offline participation mean scores. However, as OSN users, people with motor disabilities tend to evaluate OSN more positively when their offline participation is more restricted, while people with vision disabilities report higher usefulness of OSN when their offline participation restriction levels are less. This suggests that people with vision impairment may lack access to assistive technologies, or those technologies are inconvenient, or OSN web design is not adapted to their needs. An additional study is needed to explore the issues related to this digital divide.

The strongest motivations for why people with disabilities join OSN are related more to maintenance of offline connections and less because of seeking entertainment and information splitting. There are positive correlation between offline participation index and motives to expand one‘s social network and to seek out people with similar disabilities. It is mean that people with disabilities who have more offline participation restrictions seek to expand their social relationships and to connect to people with similar disability conditions using OSN.

People with disabilities the most frequently use OSN as passive consumers, meaning they read information, visit the profiles of other OSN members, etc., and most rarely (about once a month) engage in productive activities such as sharing information, organizing events or conducting commercial activities.

The conclusion can be drawn that in Lithuania people with disabilities have a relatively not very high use of OSN as facilitated opportunities to compensate their offline participation restriction, to expand their social networks and to enhance their social capital. One weakness of the current research is the low number of participants with vision and hearing impairments for comparing more statistically significant differences between all of these disability groups. To address this issue, currently an additional survey on Lithuanian OSN users with the most severe vision and hearing impairments, is currently being carried out. Also, for the sake of comparison, a similar survey needs to be conducted on OSN users without disabilities so that significant differences can be identified between social networking of the OSN visitors for those with and without disabilities.

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